

■ **2016**





至誠至博







	1
	13
轻工科学与工程学院	
	16
	30
	42
	54
	67
	79
	91
	103
	113
	124
附录	
	135
( )	137





1.



6.

7. "

"

7.1



8.

8.1

8.1.1

8.1.2

8.1.3

8.2


	/		









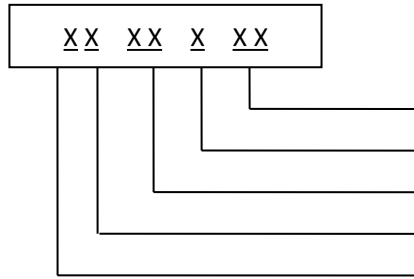




9.

10.

2016







1110321-4

4

1110321 1110322 1110323 1110324

1	1
2	1
3	10
4	3
5	21-24

A B

2110201	A	5	80
2110215-16	B	7	112

,

1

1.1

1.2

1.3

1.4

1.5

2

2.1

2.2



2.3

2.4

3 /

3.1

3.2

4

4.1

4.2

5

5.1

5.2

5.3

5.4

6

6.1

6.2

6.3

7

7.1

7.2

8

8.1

8.2

8.3

9

9.1

9.2

10

10.1

10.2

11

11.1

11.2

12

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
	1.5	
2	2.1	
	2.2	

	2.3	
	2.4	1                      2
3     /	3.1	
	3.2	
4	4.1	

		1 2
	4.2	1 2
5	5.1	
	5.2	
	5.3	1 2
	5.4	

6	6.1	1 2
	6.2	
	6.3	
7	7.1	
	7.2	
8	8.1	
	8.2	
	8.3	

		1 2
9	9.1	
	9.2	
10	10.1	
	10.2	
11	11.1	
	11.2	



12	12.1	
	12.2	

		<b>33</b>	<b>8</b>	<b>52.5</b>	<b>11</b>	<b>/</b>	<b>/</b>	<b>24</b>	<b>128.5</b>	<b>68%</b>
		<b>25.7%</b>	<b>6.2%</b>	<b>40.9%</b>	<b>8.6%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>18.7%</b>	<b>100%</b>	
										<b>32%</b>
		<b>5.5</b>	<b>3.5</b>	<b>13</b>	<b>7</b>	<b>24.5</b>	<b>1</b>	<b>7</b>	<b>61.5</b>	







1

1.1

1.2

1.3

1.4

1.5

2

2.1

2.2

2.3

2.4

3 /

3.1

3.2

4

4.1

4.2

5

5.1

5.2

5.3

5.4

6

6.1

6.2

6.3

7

7.1

7.2

8

8.1

8.2

8.3

9

9.1

9.2

10

10.1

10.2

11

11.1

11.2

12

12.1

12.2





	2.3	
	2.4	
3 /	3.1	
	3.2	
4	4.1	
	4.2	
5	5.1	
	5.2	

	5.3	
	5.4	
6	6.1	
	6.2	
	6.3	
7	7.1	
	7.2	
8	8.1	
	8.2	

	8.3	
9	9.1	
	9.2	
10	10.1	
	10.2	
11	11.1	
	11.2	
12	12.1	
	12.2	

--	--	--

		<b>33</b>	<b>8</b>	<b>52.5</b>	<b>10</b>		<b>/</b>	<b>20</b>	<b>123.5</b>	<b>65%</b>
		<b>26.7%</b>	<b>6.5%</b>	<b>42.5%</b>	<b>8.1%</b>	<b>0</b>	<b>0</b>	<b>16.2%</b>	<b>100%</b>	
									<b>35%</b>	
		<b>5.5</b>	<b>3.5</b>	<b>23</b>	<b>2</b>	<b>24.5</b>	<b>1</b>	<b>7</b>	<b>66.5</b>	
									<b>190</b>	











3.1

3.2

4

4.1

4.2

5

5.1

5.2

5.3

5.4

6

,

6.1

6.2

6.3

7

7.1

7.2

8

8.1

8.2

8.3

9

9.1

9.2

10

10.1

10.2

11

11.1

11.2

12

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
	1.5	
2	2.1	
	2.2	
	2.3	

	2.4	
	3.1	
3 /	3.2	
	4.1	
4	4.2	
	5.1	
5	5.2	
	5.3	

	5.4	
6	6.1	
	6.2	
	6.3	
7	7.1	
	7.2	
8	8.1	

	8.2	
	8.3	
9	9.1	
	9.2	
10	10.1	
	10.2	
11	11.1	
	11.2	
	12.1	



12	12.2	
----	------	--

		<b>33</b>	<b>8</b>	<b>52.5</b>	<b>5.5</b>	<b>9.5</b>	<b>7</b>	<b>8.5</b>	<b>124</b>	
		<b>26.6%</b>	<b>6.5%</b>	<b>42.3%</b>	<b>4.4%</b>	<b>7.6%</b>	<b>5.6%</b>	<b>7%</b>	<b>100%</b>	<b>65%</b>
										<b>35%</b>
		<b>5</b>	<b>3.5</b>	<b>13</b>	<b>2</b>	<b>34.5</b>	<b>1</b>	<b>7</b>	<b>66</b>	
									<b>190</b>	<b>100%</b>







1

1.1

1.2

1.3

1.4

1.5

2

2.1

2.2

2.3

2.4

3 /

/

3.1

3.2

4

4.1

4.2

5

5.1

5.2

5.3

5.4

6

,

6.1

6.2

6.3

7

7.1

7.2

8



8.1

8.2

8.3

9

9.1

9.2

10

10.1

10.2

11

11.1

11.2

12

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
	1.5	
2	2.1	
	2.2	
	2.3	
	2.4	1 2

3 /	3.1	
	3.2	
4	4.1	1 2
	4.2	1 2
5	5.1	
	5.2	
	5.3	1 2
	5.4	
6	6.1	1 2
	6.2	

	6.3	
7	7.1	
	7.2	
8	8.1	
	8.2	
	8.3	1 2
9	9.1	
	9.2	
10	10.1	
	10.2	
11	11.1	
	11.2	

12	12.1	
	12.2	

		<b>33</b>	<b>8</b>	<b>57</b>	<b>6.5</b>	<b>13.5</b>	<b>5</b>	<b>7</b>	<b>130</b>	<b>69%</b>
		<b>25.4%</b>	<b>6.2%</b>	<b>43.8%</b>	<b>5%</b>	<b>10.4%</b>	<b>3.8%</b>	<b>5.4%</b>	<b>100%</b>	
										<b>31%</b>
		<b>4.5</b>	<b>3.5</b>	<b>16.5</b>	<b>2</b>	<b>24.5</b>	<b>1</b>	<b>7</b>	<b>59</b>	









1

1.1

1.2

1.3

1.4

1.5

2

2.1

2.2

2.3

2.4

3 /

/

3.1

3.2

4

4.1

4.2

5

5.1

5.2

5.3

5.4

9

9.1

9.2

10

10.1

10.2

11

11.1

11.2

12

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
	1.5	
2	2.1	
	2.2	
	2.3	
	2.4	1 2

3 /	3.1	
	3.2	
4	4.1	1 2
	4.2	1 2
5	5.1	
	5.2	
	5.3	1 2
	5.4	
6	6.1	1 2
	6.2	
	6.3	



7	7.1	
	7.2	
8	8.1	
	8.2	
	8.3	1 2
9	9.1	
	9.2	
10	10.1	
	10.2	
11	11.1	
	11.2	

12	12.1	
	12.2	

		<b>33</b>	<b>8</b>	<b>52.5</b>	<b>3.5</b>	<b>9</b>	<b>5</b>	<b>9</b>	<b>120</b>	
		<b>27.5%</b>	<b>6.7%</b>	<b>43.8%</b>	<b>2.9%</b>	<b>7.5%</b>	<b>4.2%</b>	<b>7.4%</b>	<b>100%</b>	<b>63%</b>
			<b>3.5</b>	<b>12.5</b>	<b>2</b>	<b>39.5</b>	<b>1</b>	<b>7</b>		
									<b>190</b>	







1

2

3

4

5

1

1.1

1.2

1.3

1.4

1.5

2

2.1

2.2

2.3

2.4

3 /

3.1

3.2

4

4.1

4.2

5

5.1

5.2

5.3

5.4



6.1

6.2

6.3

7

7.1

7.2

8

8.1

8.2

8.3

9

9.1

9.2

10

10.1

10.2

11

11.1

11.2

12

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
	1.5	
2	2.1	
	2.2	
	2.3	
	2.4	
3 /	3.1	

	3.2	
4	4.1	
	4.2	
5	5.1	
	5.2	CAD
	5.3	
	5.4	CAE C++

6	6.1	
	6.2	
	6.3	
7	7.1	
	7.2	
8	8.1	
	8.2	
	8.3	
9	9.1	
	9.2	
10	10.1	

	10.2	
11	11.1	
	11.2	
12	12.1	
	12.2	

		<b>33</b>	<b>8</b>	<b>49.5</b>	<b>8</b>	<b>9.5</b>	<b>12.5</b>	<b>9</b>	<b>129.5</b>	<b>68%</b>
		<b>25.5%</b>	<b>6.2%</b>	<b>38.2%</b>	<b>6.2%</b>	<b>7.3%</b>	<b>9.7%</b>	<b>6.9%</b>	<b>100%</b>	
									<b>60.5</b>	<b>32%</b>
		<b>6.5</b>	<b>3.5</b>	<b>12</b>	<b>6</b>	<b>24.5</b>	<b>1</b>	<b>7</b>	<b>60.5</b>	
									<b>190</b>	









1

2

3

4

5

%

1.1

1.2

1.3

1.4

1.5

&

2.1

2.2

2.3

2.4

' #

3.1

3.2

(

4.1

4.2

)

5.1

5.2

5.3

5.4

\*

6.1

6.2

6.3

+

7.1

7.2

,

8.1

8.2

8.3

-

9.1

9.2

⌘

10.1

10.2

⌘

11.1

11.2

%&

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
	1.5	
2	2.1	
	2.2	
	2.3	
	2.4	
3 /	3.1	

	3.2	
4	4.1	
	4.2	
5	5.1	
	5.2	CAD
	5.3	
	5.4	CAE C++
6	6.1	
	6.2	



	6.3	
7	7.1	
	7.2	
8	8.1	
	8.2	
	8.3	
9	9.1	
	9.2	
10	10.1	
	10.2	
11	11.1	

	11.2	
12	12.1	
	12.2	

		<b>33</b>	<b>8</b>	<b>49.5</b>	<b>10.5</b>	<b>9.5</b>	<b>11.5</b>	<b>9</b>	<b>131</b>	<b>69%</b>
		<b>25.2%</b>	<b>6.1%</b>	<b>37.8%</b>	<b>8.0%</b>	<b>7.3%</b>	<b>8.8%</b>	<b>6.9%</b>	<b>100%</b>	
										<b>31%</b>
		<b>5</b>	<b>3.5</b>	<b>12</b>	<b>6</b>	<b>24.5</b>	<b>1</b>	<b>7</b>	<b>59</b>	
									<b>190</b>	







1

1.1

1.2

1.3

1.4

1.5

2

2.1

2.2

2.3

2.4

3 /

/

3.1

3.2

4

4.1

4.2

5

5.1

5.2

5.3

5.4



7.1

7.2

8

8.1

8.2

8.3

9

9.1

9.2

10

10.1

10.2

11

11.1

11.2

12

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
	1.5	
2	2.1	
	2.2	
	2.3	
	2.4	
3 /	3.1	

	3.2	
4	4.1	
	4.2	
5	5.1	
	5.2	
	5.3	
	5.4	C++

6	6.1	
	6.2	
	6.3	
7	7.1	
	7.2	
8	8.1	
	8.2	
	8.3	
9	9.1	
	9.2	
10	10.1	

	10.2	
11	11.1	
	11.2	
12	12.1	
	12.2	

		<b>33</b>	<b>8</b>	<b>49.5</b>	<b>6</b>	<b>8.5</b>	<b>6.5</b>	<b>9.5</b>	<b>121</b>	<b>64%</b>
		<b>27.3%</b>	<b>6.6%</b>	<b>40.9%</b>	<b>5.0%</b>	<b>7.0%</b>	<b>5.4%</b>	<b>7.8%</b>	<b>100%</b>	
									<b>69</b>	<b>36%</b>
		<b>6</b>	<b>3.5</b>	<b>12</b>	<b>1</b>	<b>38.5</b>	<b>1</b>	<b>7</b>	<b>69</b>	
									<b>190</b>	<b>100%</b>







( )

1

1.1

1.2

1.3

1.4

1.5

2

2.1

2.2

2.3

2.4

3 /

/



8

8.1

8.2

8.3

9

9.1

9.2

10

10.1

10.2

11

11.1

11.2

12

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
	1.5	
2	2.1	
	2.2	
	2.3	
	2.4	
3 /	3.1	

	3.2	
4	4.1	
	4.2	
5	5.1	
	5.2	CAD
	5.3	
	5.4	CAE C++
6	6.1	
	6.2	
	6.3	

7	7.1	
	7.2	
8	8.1	
	8.2	
	8.3	
9	9.1	
	9.2	
10	10.1	
	10.2	
11	11.1	
	11.2	
12	12.1	

	12.2	
--	------	--











%

1.1

1.2

1.3

1.4

&

2.1

2.2

2.3

' #

3.1

3.2

(

4.1

4.2

+

7.1

7.2

,

8.1

8.2

8.3

-

9.1

9.2

⌘

10.1

10.2

⌘

12.1

12.2

1	1.1	
	1.2	
	1.3	
	1.4	
2	2.1	
	2.2	
	2.3	
3 /	3.1	



	3.2	
4	4.1	
	4.2	
5	5.1	
	5.2	
	5.3	
	5.4	
6	6.1	
	6.2	
	6.3	
7	7.1	
	7.2	

8	8.1	
	8.2	
	8.3	
9	9.1	
	9.2	
10	10.1	
	10.2	
11	11.1	
	11.2	
12	12.1	
	12.2	

		<b>33</b>	<b>8</b>	<b>52.5</b>	<b>9.5</b>	<b>7</b>	<b>5</b>	<b>12</b>	<b>127</b>	
		<b>26.0%</b>	<b>6.3%</b>	<b>41.3%</b>	<b>7.5%</b>	<b>5.5%</b>	<b>3.9%</b>	<b>9.4%</b>	<b>100%</b>	
		<b>4.5</b>	<b>3.5</b>	<b>15.5</b>	<b>7</b>	<b>24.5</b>	<b>1</b>	<b>7</b>	<b>63</b>	
									<b>190</b>	







(2016年7月修订)





2015 7

( )









--	--	--	--	--







